.409197, and .39427, respectively.   Mediums are: 26.34, 36.36, 43.74, 50.62 and 58.42.

Absolute ranges for grades 4, 5, 6, 7 and 8 are 34, 40, 38, 29, and 24 respectively; semi-interquartile ranges: 5.58, 6.98, 6.47, 5.41, and 3.88 with probable errors of .26415, .29334, .27371, .32231, and .31015, respectively. Standard deviations: 6.92, 6.80, 6.50, 7.28 and 5.67, with probable errors of .23741, .26365, .24363, .289319, and .27876, respectively; 10-90 percentile ranges are: 19.18, 15.98, 15.07, 18.45, and 13.92, respectively.

Where reading is represented by 1, reasoning 2, and fundamentals 3, total correlations for the grades all taken together are as follows:

$$r_{12} = .636; r_{23} = .822; \text{and } r_{13} = .715.$$

(Scatter diagram was used with Karl Pearson's formula.)

Using the same notation, partial correlations were found as follows:

$$r_{12.3} = .121; r_{13.2} = .437; r_{23.1} = .687.$$

Values found for multiple correlations are:

$$R_{1.23} = .72; R_{2.13} = .83; R_{3.12} = .86.$$

It will be seen that fourth, fifth, sixth, seventh and eighth grade students are retarded 5, 7, 6, 7, and 3 months respectively, using grade norms. The lesser retardation of grade 8 is probably due to the fact that no scores were available for the repeaters in this grade. Pupils in the rural schools of this county are doing work in fundamentals over half a year before the national standard. Also, if a large number of means for these grades in the rural schools of North Carolina were computed, it is reasonably certain that the true means will lie within the Craven County means + 2 P. E., as follows:

25.30 to 26.66, grade ability 3.3 to 3.4.
34.74 to 36.22, grade ability 4.1 to 4.2.
42.58 to 43.98, grade ability 5.1 to 5.2.
50.16 to 51.80, grade ability 6.1 to 6.2.
57.72 to 59.28, grade ability 7.4 to 7.7.

The absolute range though not very significant, is wide in all cases, widest in grade 5 and narrowest in grade 8. The latter is probably due to the same reason given for relatively small retardation. Semi-interquartile ranges show a greater clustering of the scores of the middle 50 per cent in grade 8, with grade 7 next and the greatest scattering in grade 5. 10-90 percentile ranges give a closer clustering in grade 4. Probably there are more pupils with low I. Q's, in grade 5, but the general preparation for normal pupils may be poor in grade 4. The most important measure of variability, the standard deviation, narrows the picture of the distribution by showing that 68.26 per cent of the cases fall between mean + sigma, or in these cases:

19.06 to 32.90, grade ability 3.1 to 3.8.
28.68 to 46.28, grade ability 3.5 to 5.6.
36.78 to 49.78, grade ability 4.2 to 6.1.
43.70 to 58.26, grade ability 5.3 to 7.5.
52.83 to 64.17, grade ability 6.4 to 8.4.

This shows a rather wide range for normal pupils within the grade.